

CLAIMS

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1. A method of protecting a plant against bacterial infection and/or virus infection transmitted by bacteria, comprising introducing into the genome of the plant by transformation the ability to synthesise a *N*-acyl-L-homoserine lactone.

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2. A method of protecting a plant against bacterial infection and/or virus infection transmitted by bacteria, comprising introducing into the genome of the plant by transformation the ability to synthesise an analogue of *N*-acyl-L-homoserine lactone capable of competing with the *N*-acyl-L-homoserine lactone secreted by infecting bacteria for *N*-acyl-L-homoserine lactone receptor sites therein.

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3. A method of enhancing interaction between a rhizobacterium and a plant comprising introducing into the genome of the plant by transformation the ability to synthesise the *N*-acyl-L-homoserine lactone naturally produced by the rhizobacterium.

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20 4. A method as claimed in any of claims 1 to 3 in which the gene expressing the *N*-acyl-L-homoserine lactone is selected from the group consisting of, the *yenI* gene of *Yersinia enterocolitica*; the *cviI* gene of *Chromobacterium violaceum*; the *luxI* gene of *Photobacterium fischeri*; the *carI* gene of *Erwinia carotovora*; the *traI* gene of *Agrobacterium tumefaciens* and the *lasI* and *vsmI* genes of *Pseudomonas aeruginosa*.

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5. A recombinant plant genome containing a gene construct for *in planta* expression of an *N*-acyl-L-homoserine lactone and/or the response regulator thereof.

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6. A genome as claimed in claim 5 in which expression of the said *N*-acyl-L-homoserine lactone is targeted to plant chloroplasts.